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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,064	10/05/2005	Oliver Schadt	MERCK-3067	6539

23599 7590 03/14/2007  
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ARLINGTON, VA 22201

EXAMINER
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JARRELL, NOBLE E

ART UNIT	PAPER NUMBER
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1609

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
31 DAYS	03/14/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

Application No.

10/552,064

Applicant(s)

SCHADT ET AL.

Examiner

Noble Jarrell

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-17 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☒ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- ☐ Notice of Informal Patent Application
- ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Election/Restrictions*

1. Restriction is required under 35 U.S.C. 121 and 372.

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

In accordance with 37 CFR 1.499, applicant is required, in reply to this action, to elect a single invention to which the claims must be restricted.

Group I, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-O, respectively.

Group II, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and CHO, respectively.

Group III, claim(s) 1-7, 10, 14, 17 drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-Piperazine, respectively.

Group IV, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and NH<sub>2</sub>, respectively.

Group V, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group VI, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Furan, and CH=N-O-A, respectively.

Group VII, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, benzene, and C<sub>0-5</sub>-Piperazine, respectively.

Group VIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, benzene, and carbamate, respectively.

Group IX, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-O, respectively.

Group X, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and CHO, respectively.

Group XI, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-Piperazine, respectively.

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Group XII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-furan, respectively.

Group XIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group XIV, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-pyrrolidine, respectively.

Group XV, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Furan, and C<sub>0-5</sub>-N(alkyl)<sub>2</sub>, respectively.

Group XVI, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group XVII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-O, respectively.

Group XVIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-CHO, respectively.

Group XIX, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Isooxazole, and CH=N-O-A, respectively.

Group XX, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-Piperazine, respectively.

Group XXI, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group XXII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-O, respectively.

Group XXIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-CHO, respectively.

Group XXIV, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Isooxazole, and CH=N-O-A, respectively.

Group XXV, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-Isooxazole, and C<sub>0-5</sub>-Piperazine, respectively.

Group XXVI, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group XXVII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-O, respectively.

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Group XXVIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-CHO, respectively.

Group XXIX, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-pyrrole, and CH=N-O-A, respectively.

Group XXX, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as C, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-Piperazine, respectively.

Group XXXI, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-CO<sub>2</sub>, respectively.

Group XXXII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-O, respectively.

Group XXXIII, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-CHO, respectively.

Group XXXIV, claim(s) 1-7, 10, 14, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-pyrrole, and CH=N-O-A, respectively.

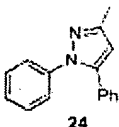
Group XXXV, claim(s) 1-7, 10, 14, 17, drawn to compounds of formula I wherein variables X, R<sup>2</sup>, and R3/R4 are defined as N, C<sub>0-5</sub>-pyrrole, and C<sub>0-5</sub>-Piperazine, respectively.

Groups XXXVI-LXX, claims(s) 8,9, 15, drawn to preparing compounds of formula I of groups I-XXXV, respectively.

Groups LXXI-CV, claim(s) 11-13, drawn to methods of treatment using compounds of formula I of groups I-XXXV, respectively.

Groups CVI-CXL, claim(s) 16, drawn to methods of treatment using compounds of formula I of groups I-XXXV, respectively.

2. The technical feature that links the instant claims is a compound of formula I. However, Baron et al. WO2001032627, published 10 May 2001) teach the following structure on scheme 4 of page 12 in structure 24.



This structure anticipates the structure of formula I and claims 1-3 and 5 because variables X, R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> are defined as the following in the structure: C, benzene, H, and methyl. Therefore, there is a

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lack of unity in the invention, because the technical feature linking the claims does not provide a contribution over the prior art.

3. It is noted that formula I is an improper Markush group. It is an improper Markush group because two possible cores exist for formula I. The two cores are phenyl-pyrazole and pyridine-pyrazole.

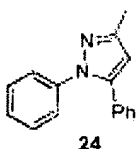
4. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are individual compounds that can be considered part of the genus of compounds of formula I.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

5. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: Baron et al. WO2001032627, published 10 May 2001) teach the following structure on scheme 4 of page 12 in structure 24.



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This structure anticipates the structure of formula I and claims 1-3 and 5 because variables X, R<sup>2</sup>, R<sup>3</sup>, and R<sup>4</sup> are defined as the following in the structure: C, benzene, H, and methyl.

6. Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

7. The examiner has required restriction between product and process claims. Where applicant elects claims directed to the product, and the product claims are subsequently found allowable, withdrawn process claims that depend from or otherwise require all the limitations of the allowable product claim will be considered for rejoinder. All claims directed to a nonelected process invention must require all the limitations of an allowable product claim for that process invention to be rejoined.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103 and 112. Until all claims to the elected product are found allowable, an otherwise proper restriction requirement between product

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claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowable product claim will not be rejoined. See MPEP § 821.04(b). Additionally, in order to retain the right to rejoinder in accordance with the above policy, applicant is advised that the process claims should be amended during prosecution to require the limitations of the product claims. **Failure to do so may result in a loss of the right to rejoinder.** Further, note that the prohibition against double patenting rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

8. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Noble Jarrell whose telephone number is (571) 272-9077. The examiner can normally be reached on Monday-Friday from 7:30 to 5:00. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisors, Andrew Wang or Cecilia Tsang, can be reached on (571) 272-0811 or (571) 272-0562, respectively. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

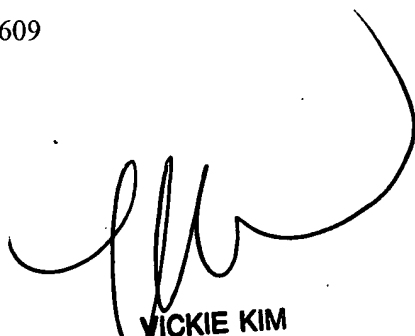


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**VICKIE KIM**  
**PRIMARY EXAMINER**